EXHIBIT 3

November 3, 1971 W.R. Grace Libby Montana Reclamation Plan (Approved January 27, 1972)

RECLAMATION PLAN FOR W. R. GRACE & CO.

LIBBY, MONTANA, TO ACCOMPANY APPLICATION

FOR OPERATING PERMIT DATED NOVEMBER 3, 1971

Post-it® Fax Note 7671	Date 6/23	# of pages ▶ 6
To ROB MERRIAM	From PLANTENBERG	
Co./Dept.	Co. DEQ	
Phone #	Phone # 406-444-4960	
Fax # 9015202061	Fax #	

Received December 30, 1971
Department of State Lands

RECLAMATION PLAN NO. 00010

APPROVED January 27, 1972
Date

Commissioner, Department of State Lands

A. 1. Currently the land is in use as forest land, by industry and very limited recreation and wild life usage.

2. The nearby land is used as forest land.

3. The land is naturally suited to forest uses but cover does not support much wildlife nor does topography offer recreational advantages.

B. The Geological Survey map enclosed of the Vermiculite Mountain Quadrangle shows the mine-mill area and the mill tails and mine dump areas as they were located at the time of map publication. Currently, they have been extended because of more material being placed. Future activities will consist of additional mine waste and mill tails being added to existing piles. There will be additional fine mill tailings placed behind a retention dam shown on enclosed drawing No. 40-1001.

Upon completion of all mining activities (assumed 100 year life), the mine area will appear as a bench at 3600 ft. elevation resulting from mining activity. Below at 3500 ft. elevation will be a bench resulting from mine waste movement and placement. In between will be an essentially undisturbed area which will be used for access and haul roads. The mine waste material will be resting at its natural angle of repose approximately $1\frac{1}{4}$ or $1\frac{1}{2}$ to 1. This material will be placed by dumping and dozing.

The mill tails will be placed in two areas, being split by size. The +65 mesh material will be placed in the hillside below 3600 ft. elevation to approximately 3050 foot elevation. These will be placed by discharging from a screw classifier or plate thickener, or some similar machine and dozed to a natural angle of repose of approximately $1\frac{1}{2}$ or 2 to 1 slope.

The -65 mesh tails will be conveyed through slurry lines to be collected behind a tailings dam impoundment to approximately 3050 ft. elevation. The water from these will be decanted and recycled in the milling operation. These tails will be largely dewatered behind the dam.

Because of the glacial nature of the material, it is not feasible to stockpile the topsoil.

Upon abandonment of the property, the disturbed areas will be seeded with a mixture of grass and tree seeds to revegetate. Experience has shown that the vermiculite-bearing mineral soils grow sweet clover, grasses, brush and trees profusely.

C. In areas which are abandoned, vegetative cover will be established by seeding with a seed mixture of grasses and cover in accordance with general practices as recommended by the U. S. Forest Service of the U. S. Soil Conservation Service.

Reseeding of stable, abandoned activity areas has been done in the past with excellent growth taking place.

If any reseeded areas do not take, a second revegetation effort will be made incorporating new methods necessary to re-establish vegetation.

D. 1. A mill tailings impoundment dam is being constructed across Rainy Creek to control water drainage and prevent sedimentation downstream. There is no danger from acid drainage.

2. The impounding structure is being equipped with a spillway to protect against washouts. The spillway is constructed from rip-

D. 1. A mill tailings impoundment dam is being constructed across Rainy Creek to control water drainage and prevent sedimentation downstream. There is no danger from acid drainage.

2. The impounding structure is being equipped with a spillway to protect against washouts. The spillway is constructed from riprap placed five feet below the top of the dam. There is a permanent concrete flow area along one side to provide for any normal overflow which might occur. In addition there is a three-foot high earthen "soft plug" which would wash out with any abnormally large sudden flow of water into the impoundment area. This would safeguard the dam structure.

3. Solid waste disposal is handled by burial in the mine dump in a manner to prevent water pollution or cause any deleterious effect upon the revegetation efforts. All applicable county, state and federal laws are being complied with.

* 4. Upon abandonment of the property, surface water will be diverted around the disturbed area.

5. All access, haul and other support roads shall be located, constructed and maintained in such a manner as to control and minimize channeling and other erosion.

6. All operations shall be conducted so as to avoid range and forest fires and spontaneous combustion.

7. If anything of a significant nature is discovered of archaeological or historical value, the State Archaeologist at the University of Montana will be contacted.

8. Provisions are being made to avoid an accumulation of stagnant water in the development area which may serve as a host or breeding ground for mosquitoes or other disease-bearing or noxious insect life.

9. All final grading shall be made with non-noxious, non-flammable, non-combustible solids.

10. Proper precautions are being taken to assure that exposed cuts and tailings and spoil disposal areas will not be subject to wind erosion to the extent that air-borne detritus becomes a public nuisance or detriment to the flora and fauna of the area.

E. Mining debris will be piled in small ravines adjacent to the mining area in Sections 22, 27 and 28 resulting in a bench or flat area where ravines now exist. The coarse (+65 mesh) mill tailings will be placed on the hillside as previously outlined. These will be in Sections 15 and 22 above the tailings pond. The tailings pond will contain the fines

(-65 mesh) mill tailings. This pond is shown on drawing 40-1001. A decant water line system is designed and being incorporated into the structure to recycle the water for milling purposes. A rock spillway is provided in the dam which will not normally flow, but is for use only in periods of excessive water flowing into the impoundment area.

F. Surface water diversion will be by permanent channels around all disturbed areas. Any roadway, crossing any channel will be equipped with galvanized steel culverts adequate for any known or anticipated flood condition, based on a hydrology report we have, prepared on the Rainy Creek Drainage Basin from all available recorded data.

This same hydrology report was used for basic data background for the dam design.

A copy of the report is being furnished.

G. Drawing No. 40-1001 shows the relocation of Rainy Creek, presently being accomplished and completed except for placing of some rip-rap. A further relocation will be necessary in approximately three years. This relocation will roughly follow the contours of the "Future By-Pass Road" as shown on this drawing. ← 1979 letter Feb 16, 73

It will be necessary to relocate Carney Creek in the future. At the time this becomes necessary, a plan will be formulated and forwarded to the State Land Office for review.

These relocations will comply with listed provisions of the rules and regulations.

1. Relocated channels shall be of a length equal to or greater than the original channel.

2. The relocated channel shall contain meanders, riffles and pools similar to those in the original channel to the largest extent possible, according to the natural terrain.

3. Stream banks will be rounded to prevent slumping and sloughing and shall be revegetated in keeping with accepted agricultural and reforestation practices. This revegetation will be accomplished the first appropriate season following channel relocation.

4. Rock rip-rap shall be used wherever appropriate.

H. Maps and photographic overlays are included with this plan.

I. Reclamation shall be as concurrent with development or mining operations as feasible and will be completed within a reasonable length of time. Revegetation will be accomplished in the first appropriate season after necessary grading, in accordance with accepted agricultural or reforestation practices.

REPLACED BY PLAN SUBMITTED 12/28/71

Reclamation Plan

Land disturbed by development and mining activities will be reclaimed for forest uses.

A. 1. Currently land is in use as forest land, by industry, very minor recreation or wild life usage.

2. Nearby land is used as forest land.

3. Land is naturally suited to forest uses but cover does not support much wildlife nor does topography offer recreational advantages.

B. Upon completion of all mining activities (assumed 100 year life), the area will appear as a bench at 3600 ft. elevation, resulting from mining activity, a bench at 3500 ft. elevation resulting from mine waste movement and a tailings pond (flat area) at 3050 ft. elevation resulting from milling. There will be a side hill mill tailings pile between the 3600 ft. elevationand the tailings pond.

C. Vegetative cover will be established by seeding with clover and promoting pine growth. Past experience has shown that this procedure is successful and rapid.

D. There is no danger from acid drainage. All impounding structures, and waste piles are protected against washouts and as learned from past re-vegetation practices, when seeded with clover do not wash or cause a sedimentation problem, nor are they subject to wind erosion. Mining plans, based on indicated reserves, cover a 100 year period. Solid waste disposal is handled by burial in manners that prevent water pollution and do not hamper re-vegetation. All flowing waters are diverted around the disturbed area.

E. Mining debris will be piled insmall ravines adjacent to the mining area in Sections 22, 27, 28 resulting ina bench or flat area where ravines now exist. Coarse mill tailings will be stacked on the hill side in Sections 15, 22 above the tailings pond. The tailings pond will contain fine mill tailings behind a dam equipped with spillways and emergency protection. Rock-lined spillway channels will be used.

F. Surface water diversion will be by permanent channels around all disturbed areas. Any roadway crossing any channel will be equipped with galvanized steel culverts adequate for any known or anticipated flow condition, based on a hydrology report we have prepared for the Rainy Creek Drainage Basin from all available recorded data.

G. Drawing No. 40-1001, attached, shows relocation of Rainy Creek, presently being accomplished, and completed except for placing of some rip-rap. A further relocation will be necessary in approximately three years. This relocation will roughly follow the contours of the "Future By-Pass Road" as shown on this drawing.

Both relocations will comply with listed provisions of the rules and regulations.

1. The relocated channel shall be of a length equal to or greater than the original channel.

2. The relocated channel shall contain meanders, riffles and pools similar to those in the original channel to the largest extent possible, according to the natural terrain.

3. Stream banks will be rounded to prevent slumping and sloughing and shall be re-vegetated in keeping with accepted agriculture and reforestation practices.

4. Rock rip-rap will be used whenever appropriate.

H. Maps and photographic overlays are included.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

VERMICULITE MOUNTAIN QUADRANGLE
MONTANA-LINCOLN CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)

11/3/71
W.R. GRACE
ENCLOSURE #2
AND
11/10/71
ENCLOSURE
SHOWING ACREAGES
DISTURBED IN 1972
.351

Future Mill Tailings Impoundment (20-2) Limit

Future Mine Dump Crest

Catchment Basins added 1-10-72

Future Pit Limit (2071)

Bear Line

K O O T E N A I
N A T I O N A L F O R E S T

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1962 and 1963. Field checked 1963

Polyconic projection. 1927 North American datum
10,000-foot grid based on Montana coordinate system, north zone
1000-meter Universal Transverse Mercator grid ticks,
zone 11, shown in blue

UTM GRID AND 1963 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24000

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

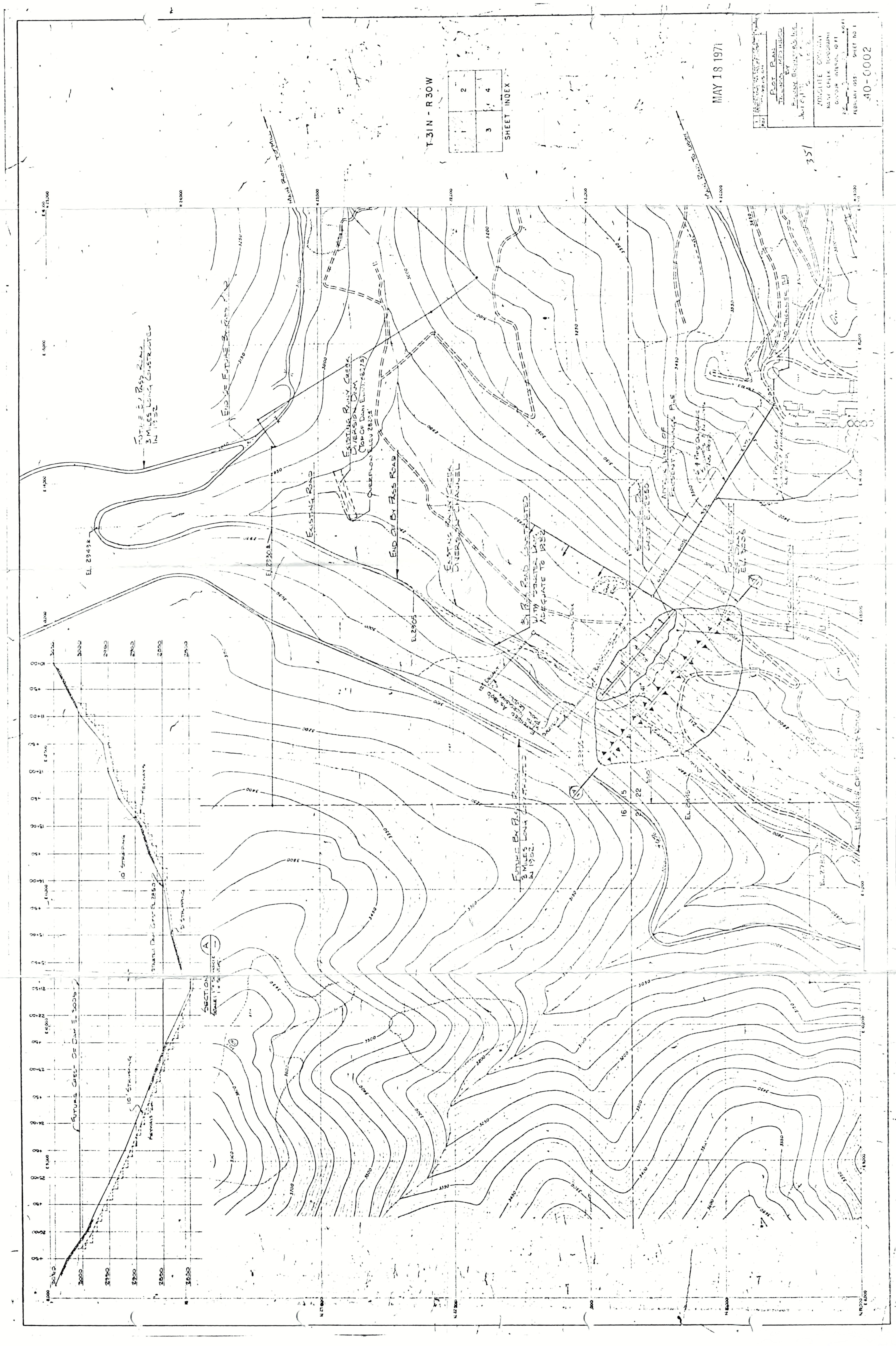
ROAD CLASSIFICATION
Medium-duty — Light-duty
Unimproved dirt
State Route

MONTANA
QUADRANGLE LOCATION

VERMICULITE MOUNTAIN, MONT.
N4822.5-W11522.5/7.5
1963
AMS 2980 IV NW-SERIES V894

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20242
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

11/15/71


T.31N - R30W
SHEET INDEX
MAY 18 1971
PLOT PLAN
BY
CONTOUR INTERVAL 10 FT
SHEET NO 1
40-0002
Existing Road
End Of By Pass Road
SECTION A